

Dr. R. K. Gupta
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CURRICULUM VITAE

Dr. Rakesh Kumar Gupta is Professor and Head, Entomology and Professor and Head, Division of Sericulture, SKUAST-Jammu. He is the researcher promoting biological control of insect pests and weeds. His concept of establishing "Entomophage Parks" for bio suppression of crop pests through natural enemies has received enormous attention by researchers all over the world. Simultaneously his work on biological control of *Parthenium* is well recognized at national level as he was awarded the Mahesh Upadhyia award by Indian society of weed science in 2018. He possesses good international exposure in term of biological control gained at Agricultural Research Organization, Israel under MASHAV Visiting Scientist Fellowship programme besides visiting twelve countries to update skills on pollination, IPM and agriculture through various scientific trips under VLIR UOS *International Fellowship* wherein he worked on biological control of greenhouse pests, Bee breeding and IPM. He also formulated the successful grant proposals and handled 11 Research Projects as Principal Investigator and 04 as Co- Principal Investigator as well. His ability to work with faculty at national and international agencies helped him to prepare and mentor students to meet their full potential through discovery, innovation and high-impact experiences. At the university level, he is a proactive member, Board of Studies for Faculty of Agriculture, Undergraduate and Postgraduate studies and also acted as a Member for checking the sanctity of papers/ research publications and core group for course curriculum of Biotechnology and member, institutionalization of Horticulture in SKUAST-Jammu. While at the UT level, He is a task force member for implementation of NEP-2020 in J&K. At the national level, He is acting as external examiner by prestigious institutes across the nation besides acting as an Expert Member, Commission for scientific and technical terminology: fundamental Glossary of Agriculture (English-Hindi-Dogri), Member, National Taskforce for sector programme of DBT Research, Appraisal and funding for women specific projects. DBT (Competitive grants), Expert Member, Agricultural Sciences, India Science, Technology & Innovation, DST, Physical monitoring (on field) of national projects in DBT and expert Member-Project Review Committee-VARD (Agriculture) National innovation foundation, Ahmadabad. He also acted as National Convenor for designing ARS syllabus for Entomology, Plant Pathology and Nematology by ICAR and expert for CAS, ASRB and UPSC, New Delhi. His contribution to the research pertains to biointensive pest management in field crops with special emphasis towards biological suppression of crop pests and weeds through natural enemies with special reference to the Biological control of *Parthenium* weed, Bioprospecting native baculovirus as viral biopesticides, Biointensive Management of fruit borer *Helicoverpa armigera* in tomato crop, IPM package for grasshopper management, Biological suppression of anar butterfly in J&K, Development of IPM module in olive, Mass production of predatory bugs, Utilizing endosymbiotic bacteria for degradation of insecticides and polythene and mealy bug management. Conservation and promotion of lac insect in Jammu region was also undertaken. Working on these aspects, he contributed to the development of a

national gene bank on lac insect, release of two varieties and commercializing few bio intensive pest management technologies. He has the distinction to be a fellow of Entomological Society of India, member of team of excellence in bio control in India, editorial board member for Twelve Journals, Associate Editor for five, Referee for twenty one, and Life member of four scientific journals. He possesses good scientific skills on IPM, ecological methods, bio control methodologies, statistical methods and computational techniques.

I have successfully guided Eleven (11) M.Sc students, Five (05) Ph, D students and currently guiding two (02) M.Sc and 03 Ph.D students. I possess good scientific skills on IPM, ecological methods, bio control methodologies, statistical methods and computational techniques. Above all I have the capacity to undertake interdisciplinary teamwork as well as to undergo independent research work.

Awards and Recognitions:

- Young Scientist Fellowship Award 2000, J&K Science and Technology
- Awarded MASHAV international Fellowship by Govt. of Israel in 2007
- Awarded International Fellowship by Belgium Govt. in 2009
- Young Scientist Associate Award 2012 (Bioved)
- Distinguished Scientist in Entomology-2017 (The Venus International Research Award)
- Awarded Star Scientist of the University for the year 2020
- Distinguished Scientist in Entomology-2017 (The Venus International Research Award)
- Mahesh K. Upadhaya Lecture award, 2018 by ICAR-Directorate of Weed Research Jabalpur, India
- The Professor T. N. Ananthakrishnan, Award 2021
- SBA- Dr. Sithananrhan Award, 2022

Recognition:

- 2nd Best centre of NPCLIGR, ICAR-IINRG, Ranchi, 2020
- Best AICRP Centre Award Honey bees and Pollinators 2020-21
- Best Stall Award in Kisan Mela in 16-20 March, 2021
- Best Stall Award in Kisan Mela in 07-11 March, 2022
- Sh. Vinod Kumar, a beekeeper from Palli village of District, Samba trained by SKUAST-J, was tweeted and mentioned in the MAAN KI BAAT by Hon'ble Prime Minister of India on 31-07-2022.

International fellowships:

- Awarded MASHAV international Fellowship by Govt. of Israel in 2007
- Awarded International Fellowship by Belgium Govt. in 2009

Best Paper/Poster Presentation:

- Best poster award on entitled, "Why do syrphids get attracted to lac infested host *Flemingia semialata*" in National symposium on "Recent advances in beneficial insects" 27-29 Nov 2013 at IINRG Ranchi.
- 2nd prize for poster presentation in 4th J&K agricultural Science Congress 2015
- Best Poster award at the "National Entomologists' Meet", February 5 – 7, 2015 at IINRG, Ranchi
- Best oral presentation award, ICAR-IINRG Ranchi, 2021 for the research paper entitled 'Excessive nectar intake from during dearth period'

Externally Funded Projects: Principal Investigator

| S. No. | Title | Funding Agency | Budget (Rs. In lakhs) | Year of start/ completion | Remarks if any |
|--------|---|----------------------|-----------------------|---------------------------|----------------|
| 1. | Development of Viral Biopesticides for the management of important Lepidopterous Insect-Pests of vegetable crops in Jammu (J&K) | NATP | 34.66 | 2001-2005 | Completed |
| 2. | Agro-technique refinement and biological suppression of anar butterfly for wild pomegranate (Anardana) in J & K | HTMM-ICAR | 25.00 | 2006-2009 | Completed |
| 3. | Management of emerging pest problems in olive orchards of J&K hills: Development and validation of location specific IPM modules | HTMM-ICAR | 21.00 | 2006-2009 | Completed |
| 4. | Exploring possibility of Lac cultivation in Jammu with IINRG, Ranchi. (National collaboration) | IINRG-Ranchi | 1.70 | 2008-2010 | Completed |
| 5. | Popularization of lac cultivation through large scale demonstrations and trainings in Jammu and Kashmir. | DBT-New Delhi | 15.55 | 2010-2013 | Completed |
| 6. | Climate change and lac crop performance (NAIP : IINRG) | NAIP-ICAR | 53.00 | 2011-2014 | Completed |
| 7. | Establishment of Bio-control Laboratory | MIDH | 90.00 | 2015-2018 | Completed |
| 8. | Community based mass production for bioagents in J&K: Popularization of low cost technology for Agri-entrepreneurship through farm based biocontrol units | DBT-New Delhi | 31.86 | 2016-2019 | Completed |
| 9. | Evaluation of NC 129 20% WP against mites in Apple | Godrej Agrovvet Ltd. | 9.00 | 2019-2021 | Completed |
| 10. | Evaluation of GOD I003 13.3% SC against borers, sucking insect-pests & mites of Okra & Brinjal and phytotoxicity on crops as well as effects on natural enemies | Godrej Agrovvet Ltd. | 6.00 | 2019-2021 | Completed |
| 11. | Biotechnological interventions for forest conservation and climate resilient livelihood in eco fragile hills of J&K | DBT-New Delhi | 39.55 | 2019 | Ongoing |
| 12. | Network Project on Conservation of Lac Insect Genetic Resources (NP-CLIGR) | ICAR, IINRG, Ranchi | 105.58 | 2014 | Ongoing |
| 13. | Bioefficacy evaluation of botanical leads against lepidopteran and sucking pests of Brinjal under field conditions | NIF-India | 5.95 | 2022 | Ongoing |

Research Publications:

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| No. of publications: | 82 |
| Books Authored /Edited | 02 (1+1) |
| Book Chapter: | 19 |

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|---|----|
| Popular Articles: | 12 |
| Technical Bulletins | 08 |
| Abstracts/Papers in Conferences/symposium | 21 |

Ten (10) Best Publications for the last five years:

| S. No | Title | Journal | NAAS rating 2022 |
|-------|---|---|------------------|
| i. | Gani, M., Senger, S., Lokanath, S., Saini, P., Bali, K., Gupta, R. , Sivaprasad, V., & Jehle, J. and Wennmann, J. 2021. Patterns in Genotype Composition of Indian Isolates of the <i>Bombyx mori</i> Nucleopolyhedrovirus and <i>Bombyx mori</i> Bidsenovirus. | <i>Viruses</i> , 13: 901-917. doi: 10.3390/v13050901 | 11.05 |
| ii. | Ibrahim, S., Gupta, R. K. , War, A. R., Hussain, B., Kumar, A., Sofi, T., Noueldeen, A. and Darwish, H. 2021. Degradation of chlorpyrifos and polyethylene by endosymbiotic bacteria from citrus mealybug. | <i>Saudi Journal of Biological Sciences</i> , 28(6): 3214-3224. | 10.22 |
| iii. | Gupta, R. K. , Kour, R., Gani, M., Guroo, M. A. and Bali, K. 2021. Potential of wax degrading bacteria for management of the citrus mealybug, <i>Planococcus citri</i> . | <i>Biocontrol</i> https://doi.org/ 10.1007/s10526-021-10120-8 | 9.57 |
| iv. | Gupta, R. K. Gani, M., Kaul, V., Bhagat. R.M and Bali, K. 2016. Field evaluation of <i>Lymantria obfuscata</i> multiple nucleopolyhedrovirus for the management of Indian gypsy moth in Jammu & Kashmir, India. | <i>Crop protection</i> , 80: 149-158. | 8.57 |
| v. | Megan Popkin, Joséphine Piffaretti, Anne Laure Clamens, Ge-Xia Qiao, Jing Chen, <u>Renaud Vitalis</u> <u>Flavie Vanlerberghe-Masutti</u> Rakesh K. Gupta , <u>Malik Lamaari</u> <u>Olivier Langella</u> <u>Armelle Coeur d'Acier</u> <u>Emmanuelle Jousselin</u> . 2016. Large-scale phylogeographic study of the cosmopolitan aphid pest <i>Brachycaudus helichrysi</i> reveals host plant associated lineages that evolved in allopatry. | <i>Biological Journal of the Linnean Society</i> , 120 (1):102 – 114. | 8.14 |
| vi. | Gupta, R.K. , Bali, K. and Gani, M. 2016. Plant–herbivore asynchrony necessitates augmentative releases of the exotic beetle, <i>Zygogramma bicolorata</i> , to enhance the biological control of <i>Parthenium hysterophorus</i> . | <i>Weed Biology and Management</i> 16, 157–168. | 7.06 |

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| vii. | Kour, R., Gupta, R.K. , Hussain, B. and Kour, S. 2022. Synergistic effect of naturally occurring Granulosis virus isolates (<i>PbGV</i>) with phagostimulants against the cabbage butterfly, <i>Pieris brassicae</i> (L.) for its eco-friendly management. | <i>Egyptian Journal of Biological Pest Control</i> , 32 : 5. https://doi.org/10.1186/s41938-022-00502-0 | 8.0 |
| iii. | Gupta, R.K. , Gani, M. and Bali, K. 2020. Utilisation of sericultural biowaste of <i>Bombyx mori</i> (Bombycidae) for mass production of the predatory stink bug, <i>Eocanthecona furcellata</i> . | <i>Biocontrol Science and Technology</i> , 30(6):1-8. DOI:10.1080/09583157.2020.1734186. | 7.67 |
| ix. | Gani, M., Gupta, R. K. , Zargar, S. M., Kour, G., Monobrullah, M., Kandasany, T. and Mohansundaram, A. 2017. Molecular identification and phylogenetic analyses of multiple nucleopolyhedrovirus isolated from <i>Lymantria obfusca</i> (Lepidoptera: Lymantriidae) in India. | <i>Applied Entomology and Zoology</i> , 52. DOI: 10.1007/s13355-017-0490-3 | 7.40 |
| x. | Guroo, M.A., Pervez, A., Srivastava, K., and Gupta and Gupta, R.K. 2017. Effect of nutritious and toxic prey on food preference of a predaceous ladybird, <i>Coccinella septempunctata</i> (Coleoptera:Coccinellidae) | <i>European Journal of Entomology</i> , 114:400-406. doi:10.14411/eje.2017.051 | 7.23 |

Details of Product/Technology Developed/Associated:

| Sl. No | Details of Product/Technology developed | Patent No./Country of patent Release/ notification details Commercialization | Nominee is a Developer, Co-developer or Associate |
|--------|---|--|---|
| 1. | Associated Scientist in development of Walnut variety JWSP-06 (Parbhat) | DSCO/SSSC-Dev/2021-22/1185-1200 Dated: 28-02-2022 | Associate |
| 2. | Associated Scientist in development of wheat variety JAUW-672 | DSCO/SSSC-Dev/2021-22/1185-1200 Dated: 28-02-2022 | Associate |
| 3. | Commercialization of Technology for production of SKUAST-J <i>Trichogramma</i> spp. (Egg parasitoids) with Alpha Environmental System Revenue (Rs. 10000) and Royalty agreement (5%) Adoption level is good for tomato and wild Pomegranate | MoU executed by Hon'ble Vice Chancellor SKUAST-J 28-02-2022 | Developer |
| 4. | Commercialization of SKUAST-J Fruit fly Traps with Alpha Environmental System Revenue (Rs. 10000) and Royalty agreement (6.5%) Adoption level is very good for fruit crops | MoU executed by Hon'ble Vice Chancellor SKUAST-J 28-02-2022 | Developer |

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| 5. | In sectary Seed mixture for beneficial insects Adoption and response by farmers is very good | Annual Report, SKUAST-Jammu | Developer |
| 6. | Local strains of insect viruses bio pesticides (NPV) with special reference to Gypsy moth and Tent caterpillar in India | Bio control Lab SKUAST-J | Developer |
| 7. | Collected and deposited 11 Lac insect strains to IINRG, Ranchi | Annual Report, NPCLIGR-2018-19 | Developer |
| 8. | Wax and polythene degrading bacteria's for mealy bug management | Technologies Developed, Recommended and published | Developer |
| 9. | A new pests of olive , Olive psylla was identified | | Developer |
| 10. | Invasive pest <i>Spodoptera frugiperda</i> was reported from J&K | | Developer |
| 11. | New virus from silkworm was reported from India | | Co-Developer |
| 12. | Natural enemies were identified with national identification services and deposited in repository <i>Meteorus</i> and <i>Glyptoapanteles</i> | Identified and deposited in Repository services | Developer |
| Plant protection/ IPM policy documents/SOP | | | |
| 13. | Developed SOPs for evaluation of botanical products by NIF, Ahmadabad | NIFI documents appended | Co-Developer |
| Demonstration or popularization of technologies | | | |
| 14 | A success story on DBT project and included in National documentary on Societal Development Programme, DBT | https://youtu.be/ZDEVbEUylU4 | Developer |
| 15 | A success story on lac cultivation in Jammu | https://iinrg.icar.gov.in/stakeholder/rkgupta.html | Developer |

National/ International level Professional Society and Academy (not covered above); Awards/ Recognition (Fellowship; Lifetime Achievement Award; President, Editor-in-Chief/ or equivalent, or Secretary positions)/ best paper/ oral presentation/ poster prize/ award

- Fellow of Entomological Society of India
- Fellow, Society for Advancement of Biological Control, PBDC, Bangalore.
- Fellow NABS
- Fellow Bioved Research Society Allahabad
- Selected as member, International organization of biological control(IOBC)
- Selected as member, ISPI International Society for Pest Information
- Member national Task force of DBT
- Member National education policy (NEP) of UT of J&K
- Member reimagining vocational education (NEP) SKUAST-Jammu
- Life member, The Society for Community Mobilization for Sustainable Development
- Life member, Indian Society for the Advancement of Insect Science, Ludhiana

- Life member, Indian Society of Pest Management and Economic Zoology, Solan.
- Life member, Plant Protection Association of India, Hyderabad.
- Life member, NESAI
- Member, Insect Study Conservation and Network.
- Member, Indian Society of Applied Entomology.
- Member, YPARD
- Member IOBC working group on mass rearing of Arthropods
- Member, International *Parthenium* News Working Group
- Member Asian Council of Science Editors
- Member International Society for Pest Information
- Expert Member, Agricultural Sciences, India Science, Technology & Innovation, DST

Editor/ member of editorial board of journal

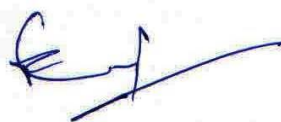
- Editorial Board member, Journal of Insect Science, India
- Editorial Board member, Red Flower Publication Pvt. Ltd.
- Editorial Board member, The Journal of Plant Protection Sciences.
- Editorial member Scigate
- Editorial board member International Research Journal of Animal and veterinary Sciences
- Editorial Board Member: Journal of Crop Technology and Agricultural Science
- Editorial board member, OT FORTY Agriculture
- Advisory Board Member, IJNHS Journal
- Associate Editor, International Journal of Agricultural Research and Crop Sciences Journal
- National Editorial Board Member, Journal of Microbiology and Related Research
- Editor for AS Agriculture
- Editor SciRange Profile

Associate Editor

- Indian Journal of Entomology
- Journal of Entomology
- Journal of Biological Sciences
- International Journal of Agricultural papers

President

- Entomological Science Academy, Jammu (Registered Society)



(R. K. Gupta)

Place: Jammu
Date: 09-01-2023